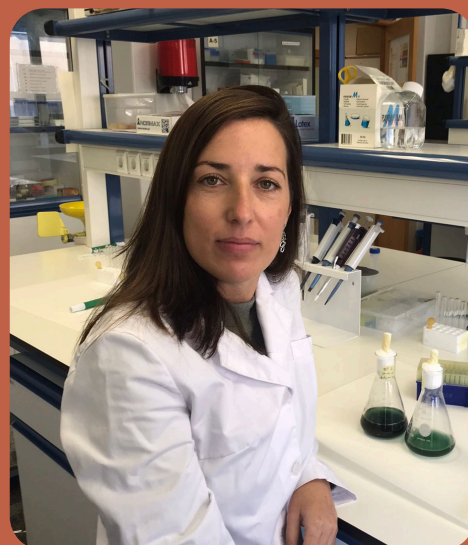




Instituto Universitario de Investigación
**Biocomputación y Física
de Sistemas Complejos**
Universidad Zaragoza

Emma Sevilla Miguel

She completed her doctoral thesis at the University of Zaragoza, under the direction of María Luisa Peleato and María Fillat, focused on the factors affecting the synthesis of microcystin, a cyanobacterial toxin. She developed a diagnostic kit for its detection in drinking water. Afterwards, she did a postdoc at the CSIC in Madrid on bioremediation, and developed several sensors. She is currently a full professor in the Department of Biochemistry and Molecular Biology at the University of Zaragoza and is part of the BIFI, since its inception.



Researcher profile

Currently, she is an R4 researcher, and studies the global regulatory networks that control adaptation processes of cyanobacteria to abiotic stress situations and in studying the potential of cyanobacteria as bioremediation agents of pollutants. She is also developing whole-cell biosensors for monitoring and detection of environmental pollutants using cyanobacteria as the main chassis.

Importance of her research

The study of regulatory networks in cyanobacteria is key because of their diverse biotechnological applications, such as biofertilizers and biofuels. Understanding gene regulatory pathways can improve these applications. In addition, cyanobacteria are useful as bioremediators and whole-cell biosensors, making them an important tool for monitoring and removing pollutants in the field of environmental biotechnology.

